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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,435	10/16/2003	Chiao-Chiang Huang	T-1266	8008
802	7590	06/28/2005	EXAMINER	
DELLETT AND WALTERS P. O. BOX 2786 PORTLAND, OR 97208-2786			RIELLEY, ELIZABETH A	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,435

Applicant(s)

HUANG ET AL.

Examiner

Elizabeth A. Rielley

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "121" has been used to designate both a neck of an electrode lead (page 4 line 20) and a transverse fin (page 4 line 22). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 2 recite the limitation "the first fin" in line 16. There is insufficient antecedent basis for this limitation in the claim. Claims 3 and 4 recite the limitation "the second fin" in lines 18 and 20. There

is insufficient antecedent basis for this limitation in the claim. For the purpose of the examination, the Examiner will understand this to be a typo, and should be first/second pin.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yu (US 20020050779).

7. In regard to claims 1-4, Yu teaches a light emitting diode (LED) having a good heat-dissipating capability (figure 8), comprising a lead frame (4) having a first pin (11) with an upper sealed portion (not numbered; see figures 7 and 8) and a bottom exposed portion (“11”) composed of a neck (13) and a conductor (11) extending from the neck for connecting to a printed circuit board (paragraphs 28-33 and 41); and a second pin (also 11) having an upper sealed portion (not numbered) and a bottom exposed portion (“11”) composed of a neck (12) and a conductor (11) extending from the neck for connecting to the printed circuit board; an LED chip (2) mounted on the upper sealed portion of the first pin and wire (3) bonded to the upper portion of the second pin; and an encapsulate covering (4) and sealing the upper sealed portion of the first and second pin and the LED chip; a transverse fin is located in each of the pins (not numbered; see figure 8).

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8. In regard to claims 5-7, Yu teaches the conductor (11) extends longitudinally from the neck (see figure 8) to form a longitudinal conductor and each neck (13) is larger than the conductor (11) in a surface area (paragraph 33).

9. In regard to claims 11-13, Yu teaches at least one slot in the neck of the first pin (not numbered; see figure 8).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 20020050779) in view of Shih (US 20030058650).

12. Yu ('779) discloses all the limitations set forth, as described above, except that each conductor extends laterally from the neck to form a lateral conductor and has a surface area; and each neck has a surface area equal to the surface area of the conductor. Shih ('650) discloses an LED, in which each conductor (150) extends laterally from the neck (part of 150; figure 5c) to form a lateral conductor. Since the neck is included with the conductor, the neck can arbitrarily end half way through the conductor, therefore the neck would have a surface area equal to the surface area of the conductor, in order to quickly dissipate the heat (paragraph 38). Hence it would have been obvious at the time of the invention to one of

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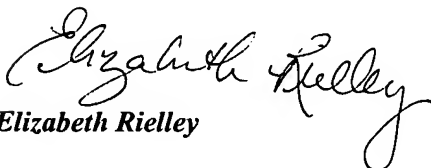
ordinary skill in the art to combine the LED of Yu with the conductor of Shih. Motivation to combine is to improve the heat dissipation quality of the LED.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Elizabeth Rielley

Examiner
Art Unit 2879

MM 6/26/05
Mariceli Santiago
AU 2879